

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an implanted oxide layer for releasing electrons at a predetermined energy level, wherein the implanted oxide layer is conforming to an entire surface of the ~~at least one emitter, and wherein the implanted oxide layer is underneath a surface of the emitter.~~
2. (Previously Presented) The device of claim 1, wherein the implanted oxide layer is formed for inhibiting outgassing including moisture.
3. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation for releasing electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one emitter~~ for lowering a potential barrier to enhance the releasing of electrons.
4. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation for releasing electrons at a predetermined energy level, wherein the implantation is conforming to an entire surface of the emitter for lowering a potential barrier to enhance the releasing of electrons ~~The device of claim 3, wherein the implantation is a layer underneath the surface of the at least one emitter.~~
5. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation for emitting electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one emitter~~ for affecting a lowering mechanism to enhance the emission of electrons.

6. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation for emitting electrons at a predetermined energy level, wherein the implantation is conforming to an entire surface of the emitter for affecting a lowering mechanism to enhance the emission of electrons ~~The device of claim 5,~~ wherein the implantation is a layer underneath the surface of the ~~at least one~~ emitter.
7. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation for releasing electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one~~ emitter for affecting an image force to enhance the releasing of electrons.
8. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation for releasing electrons at a predetermined energy level, wherein the implantation is conforming to an entire surface of the emitter for affecting an image force to enhance the releasing of electrons ~~The device of claim 7,~~ wherein the implantation is a layer underneath the surface of the ~~at least one~~ emitter.
9. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation for emitting electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one~~ emitter for enhancing the Schottky effect to enhance the emission of electrons.
10. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation for emitting electrons at a predetermined energy level, wherein the implantation is conforming to an entire surface of the emitter for enhancing the Schottky effect to enhance the emission of electrons ~~The device of claim 9,~~ wherein the implantation is a layer underneath the surface of the ~~at least one~~ emitter.

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11. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation for releasing electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one~~ emitter for decreasing a dielectric effect of the ~~at least one~~ emitter to enhance the releasing of electrons.
12. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation for releasing electrons at a predetermined energy level, wherein the implantation is conforming to an entire surface of the emitter for decreasing a dielectric effect of the emitter to enhance the releasing of electrons The device of claim 11, wherein the implantation is a layer underneath the surface of the ~~at least one~~ emitter.
13. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide ~~[[ion]]~~ implantation layer for releasing electrons at a predetermined energy level, wherein the ~~[[ion]]~~ implantation layer is conforming to an entire surface of the ~~at least one~~ emitter for enhancing the releasing of electrons and for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter.
14. (Currently Amended) The device of claim 13, wherein the ~~[[ion]]~~ oxide implantation layer is embedded in the surface of the ~~at least one~~ emitter.
15. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation layer for releasing electrons at a predetermined energy level, wherein the implantation layer is conforming to an entire surface of the ~~at least one~~ emitter for lowering a potential barrier to enhance the releasing of electrons and for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter.

16. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation layer for releasing electrons at a
predetermined energy level, wherein the implantation layer is conforming to an entire surface of
the emitter for lowering a potential barrier to enhance the releasing of electrons and for limiting
an outgassing to inhibit degradation of the emitter ~~The device of claim 15~~, wherein the
implantation layer is embedded under the surface of the ~~at least one~~ emitter.
17. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation layer for
releasing electrons at a predetermined energy level, wherein the oxide implantation layer is
conforming to an entire surface of the ~~at least one~~ emitter for affecting an image force to enhance
the releasing of electrons and for limiting an outgassing to inhibit degradation of the ~~at least one~~
emitter.
18. (Currently Amended) The device of claim 17, wherein the oxide implantation layer is
embedded in the surface of the ~~at least one~~ emitter.
19. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation layer for
emitting electrons at a predetermined energy level, wherein the oxide implantation layer is
conforming to an entire surface of the ~~at least one~~ emitter for improving the Schottky effect to
enhance the emission of electrons and for limiting an outgassing to inhibit degradation of the ~~at~~
~~least one~~ emitter.
20. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an implantation layer for emitting electrons at a predetermined
energy level, wherein the implantation layer is conforming to an entire surface of the emitter for
improving the Schottky effect to enhance the emission of electrons and for limiting an outgassing
to inhibit degradation of the emitter ~~The device of claim 19~~, wherein the implantation layer is
embedded under the surface of the ~~at least one~~ emitter.

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21. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation layer for releasing electrons at a predetermined energy level, wherein the oxide implantation layer is conforming to an entire surface of the ~~at least one~~ emitter for decreasing a dielectric effect of the ~~at least one~~ emitter to enhance the releasing of electrons and for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter.
22. (Previously Presented) The device of claim 21, wherein the implantation layer is embedded in the surface of the ~~at least one~~ emitter.
23. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and a silicon oxide ion implantation layer conforming to an entire surface of the ~~at least one~~ emitter.
24. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an oxide implantation layer conforming to an entire surface of the ~~at least one~~ emitter for releasing electrons at a predetermined energy level, wherein the oxide implantation layer is underneath a surface of the emitter.
25. (Currently Amended) A field emitter display device, comprising:
at least one emitter having an external coating, and an embedded silicon oxide layer conforming to an entire surface of the ~~at least one~~ emitter.
26. (Original) The device of claim 25, wherein the embedded silicon oxide layer is formed by an implantation process.

27. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for enhancing the releasing of electrons.

28. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for lowering a potential barrier to enhance the releasing of electrons.

29. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for affecting a lowering mechanism to enhance an emission of electrons.

30. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for affecting an image force to enhance the releasing of electrons.

31. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for improving the Schottky effect to enhance an emission of electrons.

32. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating and an embedded oxide layer for releasing electrons at a predetermined energy level, wherein the embedded oxide layer is conforming to an entire surface of the ~~at least one~~ emitter for limiting an outgassing to inhibit degradation of the ~~at least one~~ emitter and for decreasing a dielectric effect of the ~~at least one~~ emitter to enhance the releasing of electrons.

33. (Currently Amended) A field emitter display device, comprising:

at least one emitter having an external coating, and an oxide implantation for releasing electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one~~ emitter for reducing a potential barrier to enhance the releasing of electrons and for inhibiting degradation of the ~~at least one~~ emitter in the presence of the outgassing; and

a light-emitting target for radiating in response to the released electrons.

34. (Original) The device of claim 33, wherein the light-emitting target is coated with luminescent matter.

35. (Original) The device of claim 33, wherein the light-emitting target is coated with phosphorescent matter.

36. (Currently Amended) A video display, comprising:

a display screen for showing a video image; and

an array of field emission devices for forming the video image, wherein the array of field emission devices comprises:

at least one emitter having an external coating, and an oxide implantation for releasing electrons at a predetermined energy level, wherein the oxide implantation is conforming to an entire surface of the ~~at least one~~ emitter for reducing a dielectric effect of the ~~at least one~~ emitter and is stable in the presence of the outgassing; and

a light-emitting target for radiating in response to the released electrons.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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Page 9

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37.-85. (Canceled)